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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Kazunari Era

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EXAMINER

WILLIAMS, JEFFERY

ART UNIT

PAPER NUMBER

2482

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/591,447	ERA, KAZUNARI	
	Examiner	Art Unit	
	JEFFERY WILLIAMS	2482	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-3, 11-15, 16, 19, and 20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 1-3, and 16, since the metes and bounds of "computer readable medium" do not positively limit the invention to non-transitory media, the "computer readable medium" is thus interpreted to include a transmission type medium; as such the claim is drawn to a form of energy. One of ordinary skill in the art could interpret the "computer readable medium" to include transmission type media. Energy is not one of the four categories of invention and therefore the claims are not statutory. Energy is not a series of steps or acts and thus is not a process. Energy is not a physical article or object and as such is not a machine or manufacture. Energy is not combination of substances and therefor not a composition of matter.

In the specification, the applicant discloses a computer readable medium "such as" a DVD. The computer readable medium can be broadly construed to be a signal per se or energy, which is not one of four categories of invention.

Regarding claims 11-15, 19, and 20, the claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 U.S.C. 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material per se.

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The claims 11-14, 19, and 20 are directed to a computer program which can be construed as software per se, which is not one of four statutory categories of invention under 35 U.S.C. 101.

Claim 15 is directed to a method of distributing video content, which is not one of four statutory categories of invention under 35. U.S.C. 101.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-14, 19, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims are omnibus type claims.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Isao (JP 2002-123842).

Regarding **claim 1**, Isao discloses a computer readable medium comprising:
a plurality of pieces of video image data to be processed
sequentially (see [0011]); and

stereoscopic parameters for converting a video image into a stereoscopic image,
each of which is associated with each of the plurality of pieces of video image data (see
[0005], depth value calculation means to compute the depth value in said flat surface
image, and [0006], depth value detection program).

Regarding **claim 2**, Isao discloses a computer readable medium comprising:
a plurality of pieces of video image data to be processed
sequentially; and

sub-picture data to be combined with each of the plurality of pieces of video
image data, wherein the sub-picture data contains stereoscopic parameters for
converting a video image into a stereoscopic image (see [0010] and [0011], depth
values for every pixel are calculated based on the saturation of the image, and [0031]).

Regarding **claim 3**, Isao discloses the computer readable medium according to
Claim 1 or 2, further comprising a program for causing a computer to execute a
stereoscopic imaging process effecting the stereoscopic parameters on the video image
data (see [0025] sentence 4).

Regarding **claim 16**, the limitations of claim 16 are rejected in the analysis of
claim 1, and claim 16 is rejected on that basis.

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-10, 17, and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Isao in view of Jun (JP 09-044932).

Regarding **claim 4**, Isao discloses a stereoscopic parameter embedding apparatus comprising:

a video image input unit (see [0005], detecting the body which consists of a flat surface image) operable to input a plurality of pieces of video image data to be processed sequentially (see [0005], detecting the body which consists of a flat surface image and [0025] sentence 5; the various directions or data inputted from the input section 5...);

a parameter input unit (see [0025] sentence 5; the various directions or data inputted from the input section 5...) operable to input stereoscopic parameters for converting a video image into a stereoscopic image, each parameter being associated respectively with each of the plurality of pieces of video image data (see [0005], depth value calculation means to compute the depth value in said flat surface image);

Isao is silent about a converter operable to convert each of the input stereoscopic parameters into binary data and an embedding unit operable to embed bar-code image

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data corresponding to the binary data in each of the plurality of pieces of video image data.

Jun from the same or similar fields of endeavor discloses a converter operable to convert each of the input stereoscopic parameters into binary data (see abstract and [0023]-[0034]; and

an embedding unit operable to embed bar-code image data corresponding to the binary data in each of the plurality of pieces of video image data (see [0010], [0031] and [0032]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the barcode embedding unit disclosed by Jun to convert the stereoscopic parameters to binary and embed them with the corresponding bar code image data to enable images to be viewed via a medium such as video tape or DVD either stereoscopically or two- dimensionally.

Regarding **claim 5**, Isao discloses a stereoscopic parameter embedding apparatus comprising:

a sub-picture input unit (see [0025] sentence 5; the various directions or data inputted from the input section 5..., and [0031]) operable to input stereoscopic parameters for converting a video image into a stereoscopic image, each parameter being associated respectively with each of the plurality of pieces of video image data (see [0005], depth value calculation means to compute the depth value in said flat surface image);

Isao is silent about a converter operable to convert each of the input stereoscopic parameters into binary data and an embedding unit operable to embed bar-code image data corresponding to the binary data in each of the plurality of pieces of video image data.

Jun from the same or similar fields of endeavor discloses a converter operable to convert each of the input stereoscopic parameters into binary data (see abstract and [0023]-[0034]; and

an embedding unit operable to embed bar-code image data corresponding to the binary data in each of the plurality of pieces of video image data (see [0010], [0031] and [0032]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the barcode embedding unit disclosed by Jun to convert the stereoscopic parameters to binary and embed them with the corresponding bar code image data to enable images to be viewed via a medium such as video tape or DVD either stereoscopically or two- dimensionally.

Regarding **claim 6**, the limitations of claim 6 are rejected in the analysis of claim 4, and claim 6 is rejected on that basis. The “video content data preparing unit” referenced in claim 6, performs the same function as the embedding unit referenced in claim 4.

Regarding **claim 7**, Isao discloses a stereoscopic image reproducer (see [0034] sentence 1) comprising:

a reader operable to read video image data to be processed sequentially from a computer readable medium, the computer readable medium comprising the video image data (see [0010] and [0034] sentence 1),

an output unit operable to output the stereoscopic-process-applied video image data to a display in a predetermined sequence (see [0036], CRT display displays the indicative data inputted from CPU 2), and

a stereoscopic processor operable to apply a stereoscopic imaging process on the video image data (see pg. 7, [0034], sentence 1), the stereoscopic imaging process effecting the extracted stereoscopic parameters on the video image data in which the bar-code image data of the stereoscopic parameters is embedded.

Isao is silent about bar-code image data, the bar-code image data being prepared through conversion of stereoscopic parameters for converting a video image into a stereoscopic image, into binary data; a bar-code identifying unit operable to identify the bar-code image data embedded in the read video image data; and a parameter extracting unit operable to analyze the identified bar-code image data and extract the stereoscopic parameters.

Jun from the same or similar field of endeavor discloses a bar-code identifying unit operable to identify the bar-code image data embedded in the read video image data (see pg 5, [0011]; bar code extraction unit and [0045]; the bar code sampling circuit); and

a parameter extracting unit operable to analyze the identified bar-code image data and extract the stereoscopic parameters (see pg. 5, sentences 7-9, a bar code extraction means which takes out a bar code from a video signal with which a bar code was compounded and a decode means which decodes data of program related information from a bar code).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the barcode embedding unit and parameter extracting unit disclosed by Jun to convert the stereoscopic parameters to binary and embed them with the corresponding bar code image data to enable images to be viewed via a medium such as video tape or DVD either stereoscopically or two- dimensionally.

Regarding **claim 8**, Isao discloses a stereoscopic image reproducer comprising: a reader operable to read video content data from a computer readable medium, the video content data comprising video image data to be processed sequentially, and sub-picture data to be combined with the video image data and in which bar-code image data is embedded, the bar- code image data being prepared through conversion of stereoscopic parameters for converting a video image into a stereoscopic image, into binary data (rejected upon the same basis as claims 1 and 2);

an extracting unit operable to extract the video image data and the sub-picture data from the read video content data (this is an inherent feature of the stereoscopic image reproducer. The fact that both video image data and sub picture data are supplied suggests that these pieces of data need to extracted and used in some manner); and

a combiner operable to combine the stereoscopic-process-applied video image data with the sub-picture data (see pg. 6,[0032]; depth and saturation values are used to generate a 3D image); and

a stereoscopic processor operable to apply a stereoscopic imaging process on the video image data (see pg. 7, [0034], sentence 1), the stereoscopic imaging process effecting the extracted stereoscopic parameters on the video image data in which the bar-code image data of the stereoscopic parameters is embedded.

Isao is silent about a bar-code identifying unit operable to identify the bar-code image data embedded in the extracted sub-picture data; and a parameter extracting unit operable to analyze the identified bar-code image data and extract the stereoscopic parameters.

Jun from the same or similar fields of endeavor discloses a bar-code identifying unit operable to identify the bar-code image data embedded in the extracted sub-picture data (see pg 5, [0011]; bar code extraction unit and [0045]; the bar code sampling circuit); and

a parameter extracting unit operable to analyze the identified bar-code image data and extract the stereoscopic parameters (see pg. 5, sentences 7-9, a bar code extraction means which takes out a bar code from a video signal with which a bar code was compounded and a decode means which decodes data of program related information from a bar code).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the barcode identifying unit and the parameter extracting unit disclosed by Jun to convert the stereoscopic parameters to binary and embed them with the corresponding bar code image data to enable images to be viewed via a medium such as video tape or DVD either stereoscopically or two- dimensionally.

Regarding **claim 9**, Isao in view of Jun discloses the stereoscopic image reproducer according to claim 8.

Isao further discloses a bar-code eraser operable to alter the sub-picture data to erase the bar-code image data after the bar-code data is analyzed and the stereoscopic parameters are extracted from the bar-code image data (see [0043]; depth value modification processing) and [0045] and [0047]; last sentence), wherein the combiner combines the video image data with the altered sub-picture data (see [0043], [0044] and [0046], the “depth value modification section” changes the values of the sub picture data in accordance with the changes made by the “depth value alteration program”. The modified depth values disclosed by Isao can be used to generate modified bar codes, disclosed by Jun).

Regarding **claim 10**, Isao in view of Jun discloses the stereographic image reproducer according claim 8 or 9.

Isao further discloses a reproduction system switcher operable to switch between reproduction of video image data for stereoscopic viewing and reproduction of video image data not for stereoscopic viewing, wherein the combiner, if reproduction of video

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image data for stereoscopic viewing is selected by the reproduction system switcher, combines the stereoscopic- process-applied video image data with the sub-picture data, and if reproduction of video image data not for stereoscopic viewing is selected by the reproduction system switcher, combines the pre-stereoscopic process video image data with the sub-picture data. (see pg. 7, [0035] and [0036]; CPU2 performs various processing on the input data and the output is chosen by a user by the use of a mouse or keyboard. The chosen output type, ie. 2D image data, edit data, 3D image data, etc., is then output to a CRT. The user can function as the "switch system switcher" which decides whether or not the stereographic image reproducer will produce a 3D image).

Regarding **claim 17**, the limitations of claim 17 are rejected in the analysis of claim 4, and claim 17 is rejected on that basis.

Regarding **claim 18**, the limitations of claim 18 are rejected in the analysis of claim 7, and claim 18 is rejected on that basis.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Starks et al. (6, 108, 005)
- Aoki (US 7, 053, 937)
- Takano et al. (US 2004/0247175)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFERY WILLIAMS whose telephone number is (571)270-7579. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571)272-7509. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2482

/JEFFERY WILLIAMS/
Examiner, Art Unit 2482

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